

IN THE ABSTRACT OF THE DISCLOSURE

Please amend the Abstract as follows:

DISTRIBUTED MEMORY INITIALIZATION AND TEST METHODS AND APPARATUS

ABSTRACT

A memory system includes multiple memory modules, which communicate with a memory controller over one or more channels. When a memory module receives an initialization command from a processor or the memory controller, the memory module performs an initialization procedure of the memory locations associated with the memory module. In an embodiment, at least a portion of the initialization procedure is performed in parallel with the other memory modules performing initialization procedures. Each memory module may include a buffer module, which receives the initialization command, and generates and sends data packets with the initialization data to the memory locations. A memory module also can receive a test command from the processor or memory controller, which causes the memory module to read data from the memory locations, compare that data with expected data, and keep track of any errors that may occur.